

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method of producing a coated substrate comprising the steps of:
 - a) forming a composite, multilayer, free flowing curtain, the curtain having a solids content of at least about 45 weight percent and a first component and a second component capable of reacting with each other, wherein the first and second components are in different layers of the curtain, wherein the first component is cationic starch, and wherein the free flowing curtain comprises a top layer ensuring printability and
 - b) contacting the curtain with a continuous web substrate wherein the continuous web substrate has a web velocity of at least from about 600 m/min. to about 3,200 m/min. to produce a printable coated substrate.
2. (Cancelled)
3. (Currently amended) The method of Claim 1 ~~2~~, wherein in the multilayer free flowing curtain of step a) at least one internal layer is present between the layer comprising the first component and the layer comprising the second component.
- 4-8. (Cancelled)
9. (Currently amended) The method of Claim 1, wherein the reaction between the first component and the second component of step a) takes place in the free flowing curtain and/or when applied to the substrate and/or when initiated by heat, ~~pressure, radiation, and/or oxygen.~~

10. (Cancelled)

11. (Currently amended) The method of Claim 1, wherein ~~in step a) the first component is cationic starch and~~ the second component is an anionic coating composition.

12. (Cancelled)

13. (Original) The method of Claim 1, wherein the continuous web substrate of step b) has a grammage of from about 20 to about 400 g/m².

14. (Previously presented) The method of Claim 1 wherein at least one of the layers of the multilayer curtain of step a) has a coatweight when dried of less than about 30 g/m².

15. (Previously presented) The method of Claim 1, wherein the multilayer curtain of step a) has a coatweight when dried of less than about 60 g/m².

16. (Previously presented) The method of Claim 1, wherein the multilayer curtain of step a) comprises at least 3 layers.

17. (Previously presented) The method of Claim 1, wherein the multilayer curtain of step a) comprises at least one layer comprising at least one pigment.

18. (Original) The method of Claim 17, wherein the pigment is selected from the group consisting of clay, kaolin, calcined clay, talc, calcium carbonate, titanium dioxide, satin white, synthetic polymer pigment, zinc oxide, barium sulfate, gypsum, silica, alumina trihydrate, mica, and diatomaceous earth.

19. (Currently amended) The method of Claim 1, wherein the curtain of step a) further comprises a binder other than cationic starch.

20. (Original) The method of Claim 19, wherein the binder is selected from the group consisting of styrene-butadiene latex, styrene-acrylate latex, styrene-acrylate-acrylonitrile latex, styrene-butadiene-acrylate-acrylonitrile latex, styrene-butadiene-acrylate-acrylonitrile latex, styrene-maleic anhydride latex, styrene-acrylate-maleic anhydride latex, polysaccharides, proteins, polyvinyl pyrrolidone, polyvinyl alcohol, polyvinyl acetate, cellulose derivatives and mixtures thereof.
21. (Previously presented) The method of Claim 1, wherein at least one layer of the multilayer free flowing curtain of step a) comprises at least one optical brightening agent.
22. (Previously presented) The method of Claim 1, wherein at least one layer of the multilayer free flowing curtain of step a) comprises at least one surfactant.
- 23-24. (Cancelled)
25. (Original) The method of Claim 1, wherein the continuous web substrate of step b) is a basepaper or a paperboard.
26. (Original) The method of Claim 1, wherein the continuous web substrate of step b) is neither precoated nor precalendered.
27. (Cancelled)
28. (Withdrawn) A coated substrate obtainable by the method of Claim 1.
29. (Withdrawn) A coated substrate according to claim 28, wherein the coated substrate is coated paper or paperboard.
30. (Currently amended) A process for producing a coated substrate comprising the steps of:

- a) forming a composite, multilayer, free flowing curtain, the curtain having a solids content of at least about 45 weight percent ~~and wherein the curtain comprises a first component and a second component capable of reacting with each other at least one component capable of reacting with itself or another compound, whereby one layer comprises the first component which is capable of reacting with the second component in a different layer, wherein the first component is a cationic starch and the second component is an anionic coating composition, and wherein the free flowing curtain comprises a top layer ensuring printability and~~
- b) contacting the curtain with a continuous web substrate of paper or paperboard in the substantial absence of an applied electrostatic field, wherein the continuous web substrate has a web velocity of from at least about 1,000 m/min to about 3,200 m/min., ~~and wherein at least one component of the curtain begins reacting during the coating process and is essentially completely reacted before the coating process is complete to produce a coated paper or paperboard having a printable top layer.~~

31-33. (Cancelled)

34. (Currently amended) The method of Claim ~~31~~ 30, wherein the reaction between the first component and the second component of step a) takes place in the free flowing curtain and/or when applied to the substrate and/or when initiated by heat, ~~radiation, and/or oxygen.~~

35. (Cancelled)

36. (Previously presented) The method of Claim 30, wherein at least one of the layers of the multilayer curtain of step a) has a coatweight when dried of less than about 30 g/m².

37. (Previously presented) The method of Claim 30, wherein the multilayer curtain of step a) has a coatweight when dried of less than about 60 g/m².

38. (Previously presented) The method of Claim 30, wherein the multilayer curtain of step a) comprises at least 3 layers.
39. (Previously presented) The method of Claim 30, wherein the multilayer curtain of step a) comprises at least one layer comprising at least one pigment.
40. (Original) The method of Claim 39, wherein the pigment is selected from the group consisting of clay, kaolin, calcined clay, talc, calcium carbonate, titanium dioxide, satin white, synthetic polymer pigment, zinc oxide, barium sulfate, gypsum, silica, alumina trihydrate, mica, and diatomaceous earth.
41. (Cancelled)
42. (Currently amended) The method of Claim ~~30~~ 41, wherein the multilayer curtain of step a) further comprises at least one binder other than cationic starch is selected from the group consisting of styrene-butadiene latex, styrene-acrylate latex, styrene-acrylate-acrylonitrile latex, styrene-butadiene-acrylate-acrylonitrile latex, styrene-maleic anhydride latex, styrene-acrylate-maleic latex, styrene-acrylate-maleic anhydride latex, polysaccharides, proteins, polyvinyl pyrrolidone, polyvinyl alcohol, polyvinyl acetate, cellulose derivatives and mixtures thereof.
43. (Previously presented) The method of Claim 30, wherein at least one layer of the multilayer free flowing curtain of step a) comprises at least one optical brightening agent.
44. (Previously presented) The method of Claim 30, wherein at least one layer of the multilayer free flowing curtain of step a) comprises at least one surfactant.
- 45-47. (Cancelled)

48. (Original) The method of Claim 30, wherein the continuous web substrate of step b) is neither precoated nor precalendered.

49. (Cancelled)

50. (Original) The method of Claim 30, wherein the continuous web substrate of step b) has a grammage of from about 20 to about 400 g/m².

51. (Withdrawn) A coated substrate obtainable by the method of Claim 30.

52. (Withdrawn) A coated substrate according to Claim 30, wherein the coated substrate is coated paper or paperboard.

53. (Cancelled)

54. (Previously presented) The method of Claim 1, wherein the multilayer curtain of step a) comprises at least 4 layers.

55. (Previously presented) The method of Claim 1, wherein the multilayer curtain of step a) comprises at least 5 layers.

56. (Previously presented) The method of Claim 1, wherein the multilayer curtain of step a) comprises at least 6 layers.

57-58. (Cancelled)

59. (Previously presented) The method of Claim 30, wherein the multilayer curtain of step a) comprises at least 4 layers.

60. (Previously presented) The method of Claim 30, wherein the multilayer curtain of step a) comprises at least 5 layers.

61. (Previously presented) The method of Claim 30, wherein the multilayer curtain of step a) comprises at least 6 layers.

62-63. (Cancelled).

64. (Original) The method of Claim 1, wherein the curtain is formed with a slot die.

65. (Original) The method of Claim 1, wherein the curtain is formed with a slide die.

66. (Original) The method of Claim 1, wherein at least one layer of the curtain comprises polyethylene oxide.

67. (Original) The method of Claim 1, wherein the curtain comprises polyethylene oxide in the interface layer.

68. (Original) The method of Claim 30, wherein the curtain is formed with a slot die.

69. (Original) The method of Claim 30, wherein the curtain is formed with a slide die.

70. (Original) The method of Claim 30, wherein at least one layer of the curtain comprises polyethylene oxide.

71. (Original) The method of Claim 30, wherein the curtain comprises polyethylene oxide in the interface layer.

72-74. (Cancelled)

75. (Currently amended) The method of Claim 1 wherein the web velocity is at ~~least~~ from about 800 m/min. to about 3,200 m/min.

76. (Currently amended) The method of Claim 1 wherein the web velocity is at ~~least~~ from about 1,000 m/min. to about 3,200 m/min.

77. (Currently amended) The method of Claim 1 wherein the web velocity is at ~~least~~ from about 1,500 m/min. to about 3,200 m/min.

78. (Cancelled)

79. (Previously presented) The method of Claim 1 wherein the web velocity is from about 800 m/min to about 1,500 m/min.

80. (Currently amended) A method of producing a coated paper or paperboard comprising the steps of:

- a) forming a free flowing, multilayer curtain having a solids content of from about 40 to about 80 weight percent, the curtain having a first component and a second component capable of reacting with each other, wherein the first component is a cationic starch and the second component is an anionic coating composition, wherein the curtain further comprises polyethylene oxide in the interface layer, and
- b) contacting the curtain with a continuous web substrate comprising paper or paperboard, wherein the continuous web substrate has a web velocity of ~~at least about 1,000~~ from about 600 to about 3,200 m/min. to produce a paper or paperboard product, excluding photographic paper and pressure sensitive copying paper, having a printable top layer
~~wherein the curtain has a solids content of at least about 45 weight percent.~~

81-84. (Cancelled)

85. (New) The method of Claim 80 wherein the first and second components are in different layers.

86. (New) The method of Claim 1 wherein the interface layer comprises cationic starch.

87. (New) The method of Claim 1 wherein the magnitude of electrostatic field at a line where the curtain contacts the web substrate has a value in the ambient range.

88. (New) The method of Claim 80 wherein the magnitude of electrostatic field at a line where the curtain contacts the web substrate has a value in the ambient range.

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